

CLAIMS

1. A flat heating surface type gas stove comprising;
a heat resistance glass top plate which is disposed over a burner;
wherein a gas-permeable porous body is disposed below said top plate, a space between said top plate and a surface of said gas-permeable porous body is assigned to a combustion space, and combustion gas to be generated is designed to be discharged through said gas-permeable porous body.
2. The flat heating surface type gas stove according to claim 1, wherein said gas-permeable porous body is formed of silicon carbide or a material containing silicon carbide as a main component.
3. The flat heating surface type gas stove according to claim 1 or 2, wherein a second gas-permeable porous body having a lower emissivity than that of the first mentioned gas-permeable porous body is laminated on a gas outlet side of the first mentioned gas-permeable porous body.
4. The flat heating surface type gas stove according to claim 3, wherein said second gas-permeable porous body is formed of silica/alumina-based ceramic or a material containing said ceramic as a main component.
5. The flat heating surface type gas stove according to any one of claims 1 to 4, wherein said burner is disposed around said gas-permeable porous body.
6. The flat heating surface type gas stove according to any one of claims 1 to 5, wherein said burner is a surface combustion burner, and a combustion surface thereof, together with the surface of said gas-permeable porous body, is disposed to face said combustion space.
7. The flat heating surface type gas stove according to claim 6, wherein the combustion surface of said surface combustion burner is formed of silicon carbide or a material containing silicon carbide as a main component.
8. The flat heating surface type gas stove according to claim 6 or 7, wherein the combustion surface of said surface combustion burner is placed on the outer peripheral

side of the surface of said gas-permeable porous body.

9. The flat heating surface type gas stove according to claim 6 or 7, wherein the surface of said gas-permeable porous body is placed on the outer peripheral side of the combustion surface of said surface combustion burner.

10. The flat heating surface type gas stove according to any one of claims 1 to 9, wherein said gas stove further comprises a combustion gas passageway communicated with a space located on a downstream side of combustion gas flow channel of gas-permeable porous body; an air passageway for combustion; and a heat-exchanging means acting between the combustion gas passageway and the air passageway for combustion;

wherein a mixed gas comprising a combustion gas and combustion air, which has been heated through heat exchange thereof with the combustion gas by means of said heat-exchanging means is designed to be fed to said burner.